

# PSAMMONALIA

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*This Newsletter is not part of the scientific literature for taxonomic purposes*

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## EDITORIAL

### *Tools of the Trade*

Have you tried to buy supplies recently? It is amazing, but it is becoming very difficult to find supplies that I once considered routine. Simple things like those delicate forceps small enough to pick up meiofauna, but not so hard that they break the animal. How about simple glass dishes? Not plastic dishes, nor culture dishes, I want just simple dishes to sort animals. Since the arrival of biotechnology and the decline of natural history studies, it is becoming harder to find sources of supplies to study meiofauna. The supply catalogs are filled with expensive new designs to fill a variety of needs in biomedical research. But where are the old tried and true tools?

Some items have always been difficult to obtain. Ludox, used to extract animals by centrifugation, is an industrial chemical used to make cardboard. It is usually purchased by the tanker-car load. If you are lucky, a supplier will sell you a 55 gallon drum. You might need five gallons, but what do you do with the rest? Tungsten wire, to make very fine needles, is another industrial supply that is very difficult to obtain. Members of our Association have always shared or pooled resources to overcome these supply problems. Past issues of *Psammonalia* have carried advertisements for various supplies, which were obtained with much difficulty and in quantities too large to be useful.

Many of our standard tools have always been of the homemade variety. The "Manual for the Study of Meiofauna" (Hulings and Gray, 1971) is full of interesting devices: Thiel's "meiostecher," Hope's "corer," Boisseau's "extracter," etc. Remember Irwin loops? My favorite homemade device is the Dollfus "sorting plate." I was introduced to these glass dishes by Gérard Blanchard and Alain Dinet while I was in France this summer. The dish is about 10 cm x 50 cm with 1 cm x 1 cm wells. The wells are ingenious, because they keep animals in place, so they don't slosh about. Apparently, the dish was invented about 50-60 years ago by the famous French nematologist at the Museum in Paris. The plates are now rather rare.

It is fun to muse about the tools unique to our trade. Few of the supplies in catalogs really work for studying meiofauna. But, while pondering the difficulty in obtaining them, I realized that The Association could play an important role. We should identify time-saving tools and sources for the supplies. Perhaps we could even get distributors to place advertisements in *Psammonalia*. Please help me. Send me a description of your favorite tool, and where it can be obtained. I

would also like to publish histories of home-made tools. So, send me lively descriptions of the inventors and their apparatus. I think we will all be enriched by this shared knowledge. Finally, if you are commissioning the manufacture of a tool, have many made and place advertisements for them in *Psammonalia*.

## NIMCO NEWS

Alain Dinet reports that planning is underway for NIMCO, the Ninth International Meiofauna Conference. The conference will be held in Perpignon, France in 1995. Perpignon is a resort, and the high season is from the end of July through all of August. To avoid the tourist rush, Alain wants to schedule the conference for the middle of July. Also, the weather should be better at that time of year. He is negotiating with hotels and reports that reasonable rates are available. He must make reservations soon, and requests members to contact him if they have a strong preference for any particular date. His address is: Observatoire Océanologique de Banyuls, Laboratoire Arago, 66650 Banyuls-sur-mer, France. His fax number is: 68 88 16 99.

## MEETING REPORTS

### *Report on the Fifth International Conference on Copepoda*

The Fifth International Copepod Conference took place at the University of Maryland Baltimore County (UMBC) from 6-22 of June 1993. The conference was hosted by The World Association of Copepodologists (WAC) and was sponsored by UMBC and the Smithsonian Institution. For information contact: Dr. J.W. Reid, IZ-MRC-163, NMNH-Smithsonian, Washington DC, 20560 USA. Due to the restless effort of the local organizers we had a successful and interesting meeting with about 160 participants from 33 countries covering a wide range of copepod research activities: copepod ecology, phylogeny, anatomy, behavior, biology, distribution and socioeconomic impact.

As expected, most of the contributions related to the meiobenthos dealt with the Harpacticoida: 27 presentations in total, 12 as oral and 15 as poster presentations; 6 of them on freshwater, 18 on marine harpacticoids and 3 considering harpacticoid copepods from both realms. Two studies were on nonbenthic

harpacticoids; C.L. Falck and T.E. Bowman reported on the biology, sexual dimorphism and asymmetries of appendage of the associate canuellid *Parasunaristes chelicerata*. J.M. O'Neil et al. studied the grazing of the pelagic harpacticoids *Macrosetella gracilis* and *Miracia efferata* on the cyanobacterium *Trichodesmium* from the Caribbean.

Most papers considered harpacticoid taxonomy. Three contributions presented results of a multidisciplinary project on the fine systematics of *Tisbe* (H.K. Schminke and W. Westheide as principal investigators). R. Huys elucidated the evolutionary biology of Canuellidae. Trends in the composition and evolution of deep-sea Harpacticoida were discussed by F.D. Por and G. Schriever. Two subfamilies of Parastenocarididae were characterized by H. K. Schminke. T. Ishida, Y. Kikuchi and G. Moura et al. presented new morphological findings on freshwater Harpacticoida. M. Pottek et al. gave a re-evaluation of Cyliindropsyllidae and E. Willen described new Laophontidae from the Weddell Sea. New results on the ecology, sex ratio and the occurrence of pleural glands on a new species of *Apolethon* were given by N. V. Schizas and T. C. Shirley. Other anatomical contributions were provided by J. Bresciani and H.-U. Dahms on the integument of *Parathalestris harpacticoids*, the ultrastructure of spermatozoa of *Heterolaophonte minuta* and *Amphiascus parvus* by B. Hoffeld, and the structural and physiological changes of a reproductive-resting stage of *Coullana canadensis* by D. J. Lonsdale et al. Changes of deep-sea harpacticoid communities during the large-scale disturbance experiment DISCOL were discovered by G. Schriever. Reproductive behavior was the topic of 2 contributions: T. Glatzel and J.P. Duerbaum filmed the pre- and postcopulatory tandem of several harpacticoids and I. Lazaretto and B. Battaglia studied the reproductive behavior of *Tigriopus fulvus*. K. Kohlhage analyzed the feeding mechanism of *Canuella perplexa* by high-frequency microcinematography.

Other presentations considered not only Harpacticoida but also other copepod taxa, for instance a phylogeny paper by J.-S. Ho, distributional notes of freshwater Copepoda of the Americas by separate papers of J.W. Reid and C. T. Shih and R. Chengalath, the characters of copepod nauplii by H. -U. Dahms, or an account of copepod nauplii from the barrier reef of Belize by J.A. Fornshell.

A taxonomic account of marine psammic Cyclopoida from Brazil was given by G.R. Lotufo. Other studies tackled hypoplanktonic or bottom near marine Calanoida, as a taxonomic study of 5 new *Stephos* species from a deep-sea cold-seep site off Japan by T. Toda et al.

It seems the meiobenthos can be greatly affected by pelagic fauna as was shown by C.A. Morgan and C. A. Simenstad in a paper on estuarine Calanoida, entitled: "Sink or swim?" There were 13 contributions on copepod diapause, most of them on marine and freshwater Calanoida sending their resting eggs to the bottom. This may offer a welcome opportunity for meiobenthologists to share their quantitative sampling gear, expertise in stratified sampling, sophisticated sediment treatment etc. for future joint 'bottom-water column' projects.

The conference was closed with the election of a new president, Gustav-A. Paffenhofer (Savannah, GA) and the decision to have the next conference organized in Oldenburg (Germany) in the summer of 1996. There will be a proceedings of the conference contributions, published as a supplement of *Hydrobiologia* (eds. B.P. Bradley and F. D. Ferrari), available in the course of 1994. - H.-U. Dahms.

## DUES AND MEMBER SERVICES

### Note from Treasurer

Please do not send dues payment in the form of a Eurocheque. Even though made out to be paid in US dollars, the South Carolina bank must present them for payment to a European bank at a cost of \$35! Members should not use the Eurocheque methods of payment - it will cost us too much.

An easy way to pay your dues, is to simply change the currency to US dollars, and mail the dollars to Bob Feller. -ed.

## NEWS FROM MEMBERS

### Tidbits

Many of our friends at the University of South Carolina are serving (or are trapped?) in administrative duties. Bruce Coull had planned on resigning as Director of the Marine Science Program, wanting out of administration after 12 years. Unfortunately John Vernberg has taken a position as interim Dean, so Bruce has agreed to chair the program for 1 more year to help Vernberg. Bob Feller is interim Director of the Baruch Institute while Vernberg is Dean.

Olav Giere writes his book about Meiobenthology is due to come out in October of this year. It's format will be 24 by 16 cm, it will have about 325 pp. Regrettably, its price will be rather high, but this was to be expected from a Springer publication.

Teresa Radziejewska sent a copy of a conference announcement for the Sixth International Symposium on Aquatic Oligochaetes in Strömstad, Sweden, we have included the announcement and registration form for anyone who is interested.

Guilherme Lotufo is Currently a Ph.D student in John Fleeger's Lab at LSU. My research is about the effects of Polynuclear Aromatic Hydrocarbons (PAH) on the survivorship, development, and reproduction of estuarine harpacticoid copepods. I am also planning on testing if copepods adapt to PAH. I will compare the responses of populations the same species from a chronically exposed area (Louisiana) and from a putative pristine area (Florida). I am also involved in studying the taxonomy of interstitial harpacticoids from Brazilian beaches. I worked on this subject for 30 days in the Smithsonian Institution with valuable help from Janet Reid. I was granted a short term visitor fellowship from that institution. Sixteen species will be added to the list of species from the Atlantic Coast of South America.

#### *New Listserv*

A new Mollusca Taxonomy List Service has been created for mollusk phylogeny and systematics: MOLLUSKA@UVVM.UVIC.CA. The goal is to promote discussion of phylogenetic hypotheses and the construction of classifications within the Mollusca at all taxonomic levels. The intention is to foster greater interaction between researchers from different methodological and philosophical backgrounds by welcoming viewpoints from ethology, molecular biology, anatomical and ultrastructural investigations, developmental biology, paleontology, theoretical biology, and any others. The service is operated by Andrew G. McArthur at AMCARTHU@UVVM.UVIC.CA or Bitnet AMCARTHU@UVVM. To join, send the following in the body of an E-mail letter to LISTSERV@UVVM.UVIC.CA: SUBSCRIBE MOLLUSKA YOURFIRSTNAME YOURLASTNAME

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## RECENT LITERATURE

### NEW MEMBERS

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Sophie CONROY-DALTON  
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Graduated in marine biology at Heriot-Watt Univ. Scotland in 1991. She became involved in the pollution monitoring programs executed at the Marine Biology Dept. Meiobenthic community structure was analyzed in order to assess the effects of both distillery effluents in Scottish coastal waters and the impact of sewage discharges to Lancashire beaches. She has recently joined the Copepod Research Group at the Natural History Museum, where she is working under the supervision of Rony Huys. Her particular interests lie with the evolutionary biology and taxonomy of brackish-water and marine harpacticoid copepods. Their current collaborative research projects are, (1) revision of harpacticoid copepods associated with other invertebrates, (2) setting up a world-wide research database for selected key groups of copepods, and (3) taxonomy of harpacticoids from Ecuadorian brackish-water ponds.

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Geoffrey READ  
 12 Oriel Place, Tawa  
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 Is interested in Polychaeta biology and taxonomy.

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Olav Giere



**"Well, I'll be...The little rascals have developed  
a sense of humor!"**

**International Association of Meiobenthologists**

*Application for Membership or Renewal*

The International Association of Meiobenthologists is a non-profit scientific society representing meiobenthologists in all aquatic disciplines. The Association is dedicated to the dissemination of information by publishing a quarterly newsletter and sponsoring a triennial International Conference. The newsletter, *Psammonalia*, is published mid-month in February, May, August and November. The next International Conference will be in the summer of 1995.

Membership is open to any person who is actively interested in the study of meiofauna. Annual membership dues are \$10 US and you may pay up to 3 years in advance, i.e., \$30. New members will receive *Psammonalia* beginning with the February issue of the current year. If you are able, please add extra money to be contributed to the Bertil Swedmark Fund, which is used to help students or others who wish to attend the triennial International Conference.

Please check appropriate box:

New member                       Renewing member

Name \_\_\_\_\_ E-mail network \_\_\_\_\_

Address \_\_\_\_\_ E-mail address \_\_\_\_\_

FAX number \_\_\_\_\_

City, St/Prov \_\_\_\_\_ Telephone \_\_\_\_\_

Zip/Postal Code \_\_\_\_\_

Country \_\_\_\_\_

\$US \_\_\_\_\_ enclosed for \_\_\_\_\_ years membership at \$10/year.

\$US \_\_\_\_\_ enclosed to contribute to the Bertil Swedmark Fund.

\$US \_\_\_\_\_ TOTAL

Dues must be paid in US dollars. Make checks payable to Int. Assoc. of Meiobenthologists. Send dues and applications to:

Dr. Robert Feller  
Belle W. Baruch Institute  
Univ. of South Carolina  
Columbia, SC 29208 USA

Interests: \_\_\_\_\_

SIXTH INTERNATIONAL SYMPOSIUM ON AQUATIC OLIGOCHAETES  
STRÖMSTAD, SWEDEN  
5-10 SEPTEMBER 1994

FIRST ANNOUNCEMENT AND CALL FOR PAPERS

It is time to start preparing for the next international symposium on the biology of aquatic oligochaetes. Following the consensus at the fifth meeting in Estonia (1991), it will be held at the Tjärnö Marine Biological Laboratory, Strömstad, Sweden, during 5-10 September 1994. The symposium will be open to anyone interested in the morphology, systematics, evolution, biogeography, ecology, pollution biology and physiology of the Oligochaeta. You are invited to attend and to present a paper or a poster on your research in any of these fields. Contributions on leech phylogeny and systematics are also welcome. Please forward this information to any colleagues who may be interested.

The Tjärnö Laboratory is a modern marine field station serving the universities of Stockholm and Göteborg. It is located 14 km S of Strömstad, on the Swedish westcoast near Norway. This part of Sweden is an area of great natural beauty, and the site chosen for the meeting is the perfect get-away for a group of our size. Although Tjärnö is an island, it has road connections with the mainland. The Strömstad area is easily reached by train, bus or car from Göteborg (200 km distance), where an international airport is located. You may also fly into Oslo (about 160 km away) in Norway, but then you probably need to rent a car to get to Tjärnö.

Accommodation, meals and scientific sessions will be arranged at Tjärnö. The lodging will largely be in a high standard dormitory, with 2 or 3 persons sharing the same room. Due to the limited number of beds at the station, however, participants who wish to bring spouses, will probably have to arrange their own accommodation in the nearby town of Strömstad; this will also require a car for transportation to and from the marine lab. As for excursions, we plan to explore the nearby Koster Fjord (with its rich marine life), the many bronze age rock carvings and other places of historical interest.

The costs of the symposium are still tentative, but there will be a registration fee (maximum 750 SEK, today about 100 USD). Room and board (three meals) will be around 350 SEK (about 50 USD) per day. A train ticket Göteborg-Strömstad (one way) is today about 90 SEK.

We plan to have both formal oral presentations and poster sessions. You may indicate now what kind of contribution you would like to offer, but the time allocated for each presentation will be announced later, when we know the response to this first circular.

Please make your tentative registration now (not later than 1 September 1993), to be certain to receive the second circular.

Please use the enclosed form, and send it to:

Christer Erséus  
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Swedish Museum of Natural History  
Box 50007  
S-104 05 Stockholm, Sweden

Tel. +46-(8)-666 4129 Fax. +46-(8)-666 4125

I am looking forward to seeing you all in Sweden in September 1994!

SIXTH INTERNATIONAL SYMPOSIUM ON AQUATIC OLIGOCHAETES  
STRÖMSTAD, SWEDEN, 5-10 SEPTEMBER 1994

TENTATIVE REGISTRATION FORM

NAME: \_\_\_\_\_ TITLE: \_\_\_\_\_

ADDRESS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

TEL. NO.: \_\_\_\_\_ FAX NO.: \_\_\_\_\_

ACCOMPANYING PERSON (NOT PARTICIPATING IN THE SYMPOSIUM): \_\_\_\_\_ (which means that we are prepared to arrange our own accomodation).

I would like to give an oral presentation on the following topic:

\_\_\_\_\_  
\_\_\_\_\_

I would like to present a poster on the following topic:

\_\_\_\_\_  
\_\_\_\_\_

Other suggestions (particular workshops, etc.):

\_\_\_\_\_  
\_\_\_\_\_

Indicate one of the following:

\_\_\_\_\_ I am planning to attend the symposium, and I know (or believe) I will have the funds to go to Sweden in 1994.

\_\_\_\_\_ I wish to attend the symposium, but I still do not know whether I will have the time or funds to go to Sweden in 1994.

\_\_\_\_\_ I would like to attend the symposium, but I see no possibility to obtain travel funds in my country. [The organizers of the symposium are looking into the possibilities of obtaining funds that may be used to cover the travel expenses for a very limited number of participants from countries with severe currency restrictions.]

Return this form to: Prof. Christer Erséus  
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